

Statement of Basis

LA0101834; AI 41657; PER20030001

Page 2

Expected Flow: 0.602 MGD

| | | |
|---|---|-----------|
| Lincoln Park Subdivision - 400 homes @ 400gpd | = | 0.160 MGD |
| Garden Park Subdivision - 115 homes @ 400gpd | = | 0.046 MGD |
| Huntington Park Subdivision - 75 homes @ 400gpd | = | 0.030 MGD |
| Charmingdale Subdivision - 100 homes @ 400gpd | = | 0.040 MGD |
| Southeast Sewer District - 400 homes @ 400gpd | = | 0.160 MGD |
| La. Highway 15 Area - 164 homes @ 400gpd | = | 0.066 MGD |
| Prairie Road Area - 250 homes @ 400gpd | = | 0.100 MGD |
| Total Expected Flow | = | 0.602 MGD |

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

Type of Flow Measurement which the facility is currently using:

Combination Totalizing Meter / Continuous Recorder

V.

RECEIVING WATERS:

The discharge is into Bayou Mouchoir de L'Ourse; thence into Petticoat Bayou; thence into Bayou Lafourche in segment 080904 of the Ouachita River Basin.

The designated uses and degree of support for Segment 080904 of the Ouachita River Basin are as indicated in the table below^{1/}:

| Overall Degree of Support for Segment | Degree of Support of Each Use | | | | | | |
|---------------------------------------|-------------------------------|------------------------------|-----------------------------|------------------------------------|-----------------------|------------------------|-------------|
| Partial | Primary Contact Recreation | Secondary Contact Recreation | Fish & Wildlife Propagation | Outstanding Natural Resource Water | Drinking Water Supply | Shell fish Propagation | Agriculture |
| | Full | Full | Not supporting | N/A | N/A | N/A | N/A |

^{1/}The designated uses and degree of support for Segment 080904 of the Ouachita River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI.

ENDANGERED SPECIES:

The receiving waterbody, Subsegment 080904 of the Ouachita River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006 from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

Statement of Basis

LA0101834; AI 41657; PER20030001

Page 3

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required. It should be noted that SHPO's response letter for the initial permit for this facility dated September 30, 1996, identified an archeological site (16OU82) located near the facility. More specific project plans were requested to determine effects on the site. Consulting engineer, Robert L. George III, responded to this request in a letter dated October 25, 1996. SHPO's response letter, dated November 8, 1996, stated that there are no objections to this project; however, should any archeological material be uncovered during ground disturbing activity, work in the area should be halted and the SHPO should be notified.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Jim Bondy
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 080904 of the Ouachita River Basin, is not listed on LDEQ's Final 2004 303(d) list as impaired. However, subsegment 080904 was previously listed as impaired for organic enrichment/low DO, nutrients, phosphorus, suspended solids/turbidity, and priority organics including Dioxins, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

Statement of Basis

LA0101834; AI 41657; PER20030001

Page 4

Bayou Lafourche TMDLs for Dissolved Oxygen and Nutrients

As per the TMDL, of the 24 point sources in Subsegment 080904, only four point sources, including the Southeast Regional wastewater treatment facility, were considered large enough to be included in the TMDL model. The TMDL required a treatment upgrade for the four point sources included in the model. The limitations imposed on these four facilities are as follows: 5.0 mg/l for DO, 10.0 mg/l for BOD₅, 5.0 mg/l for ammonia nitrogen, and 2.5 mg/l for organic nitrogen. Total Kjeldahal Nitrogen (TKN) is the organic nitrogen concentration plus the ammonia nitrogen concentration. Therefore, the ammonia nitrogen and organic nitrogen limits shall be replaced by a single TKN limitation of 7.5 mg/l monthly average. Interim limitations, for a period lasting until six (6) years from the finalization of the TMDL, shall be placed into the permit to give the permittee time to meet the newly imposed limitations.

TMDL for TSS, Turbidity and Siltation for 13 Subsegments in the Ouachita River Basin

As per the TMDL, "Point sources do not represent a significant source of TSS as defined in this TMDL. Because an enforceable mechanism is in place to protect from discharges of organic suspended solid no limit is required for these materials." Therefore, TSS limits will remain as previously permitted.

Ouachita River Basin TMDLs for Dioxin

The TMDL states that the only identified point source of dioxin is from International Paper's Louisiana Mill (LA0007561). LDEQ believes that there is little reasonable potential for this residential wastewater treatment facility to discharge Dioxin. Therefore, limits for Dioxin will not be included in this permit.

Interim Effluent Limits:**Outfall 001**

Interim limits shall become effective on the effective date of the permit and expire on May 28, 2008 (six years from TMDL finalization).

| Effluent Characteristic | Monthly Avg. (lbs./day) | Monthly Avg. | Weekly Avg. | Basis |
|--------------------------------|-------------------------|--------------|-------------|--|
| CBOD ₅ | 50 | 10 mg/l | 15 mg/l | Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size. |
| TSS | 75 | 15 mg/l | 23 mg/l | Limits are set through Best Professional Judgement (BPJ) in a manner consistent with technology based limits and the previous LPDES permit. |
| Total Kjeldahal Nitrogen (TKN) | Report | Report mg/l | Report mg/l | A limitation for TKN will be required in the Final Effluent Limits listed below. Therefore, in the interim period, a reporting requirement shall be placed into the permit for information gathering purposes. |
| Dissolved Oxygen (DO) | N/A | Report mg/l | N/A | A limitation for DO will be required in the Final Effluent Limits listed below. Therefore, in the interim period, a reporting requirement shall be placed into the permit for information gathering purposes. |

Statement of Basis

LA0101834; AI 41657; PER20030001

Page 5

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Final Effluent Limits:**OUTFALL 001**

Final limits shall become effective on May 29, 2008 (six years from TMDL finalization), and expire on the expiration date of the permit.

| Effluent Characteristic | Monthly Avg. (lbs./day) | Monthly Avg. | Weekly Avg. | Basis |
|--------------------------------|-------------------------|--------------|-------------|--|
| CBOD ₅ | 50 | 10 mg/l | 15 mg/l | Limits are set in accordance with the <i>Bayou Lafourche TMDLs for Dissolved Oxygen and Nutrients</i> . |
| TSS | 75 | 15 mg/l | 23 mg/l | Limits are set through Best Professional Judgement (BPJ) in a manner consistent with technology based limits, and the <i>TMDL for TSS, Turbidity and Siltation for 13 Subsegments in the Ouachita River Basin</i> , and the previous LPDES permit. |
| Total Kjeldahal Nitrogen (TKN) | 38 | 7.5 mg/l | 15 mg/l | Limits are set in accordance with the <i>Bayou Lafourche TMDLs for Dissolved Oxygen and Nutrients</i> . |
| Dissolved Oxygen (DO) | N/A | 5 mg/l* | N/A | Limits are set in accordance with the <i>Bayou Lafourche TMDLs for Dissolved Oxygen and Nutrients</i> . |

*This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Statement of Basis

LA0101834; AI 41657; PER20030001

Page 6

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.2645.C.).

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X.**PREVIOUS PERMITS:**

LPDES Permit No. LA0101834: Issued: June 1, 1999

Expired: May 31, 2004

| <u>Effluent Characteristic</u> | <u>Discharge Limitations</u> | | <u>Monitoring Requirements</u> | |
|--------------------------------|------------------------------|-------------------|--------------------------------|--------------------|
| | <u>Daily Avg.</u> | <u>Daily Max.</u> | <u>Measurement Frequency</u> | <u>Sample Type</u> |
| Flow | Report | Report | Continuous | Recorder |
| BOD ₅ | 10 mg/l | 15 mg/l | 1/week | 3 Hr. Composite |
| TSS | 15 mg/l | 23 mg/l | 1/week | 3 Hr. Composite |
| Ammonia-Nitrogen | 5 mg/l | 10 mg/l | 1/week | 3 Hr. Composite |
| Fecal Coliform Colonies | 200 | 400 | 1/week | Grab |
| pH | 6 min. to 9 max. | | 1/week | Grab |

XI.**ENFORCEMENT AND SURVEILLANCE ACTIONS:****A) Inspections**

A review of the files indicates that the most recent inspection was performed by LDEQ personnel on December 12, 2001. No areas of concern were noted.

B) Compliance and/or Administrative Orders

A review of the files indicates that there are no enforcement actions administered against this facility.

Statement of Basis

LA0101834; AI 41657; PER20030001

Page 7

C) DMR Review

A review of the discharge monitoring reports for the period beginning July 1, 2004 through June 30, 2006 revealed that there have been no permit limit excursions.

XII.**ADDITIONAL INFORMATION:**

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.522 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.602 \text{ MGD} \times 10 \text{ mg/l} = 50 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between **0.50** and **1.0** MGD.

Effluent Characteristics**Monitoring Requirements**

| | <u>Measurement</u> | <u>Sample</u> |
|-------------------------|---------------------------|----------------------|
| | <u>Frequency</u> | <u>Type</u> |
| Flow | Continuous | Recorder |
| BOD ₅ | 1/week | 3 Hr. Composite |
| Total Suspended Solids | 1/week | 3 Hr. Composite |
| TKN | 1/week | 3 Hr. Composite |
| Dissolved Oxygen | 1/week | Grab |
| Fecal Coliform Bacteria | 1/week | Grab |
| pH | 1/week | Grab |

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

XIII**TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

Statement of Basis

LA0101834; AI 41657; PER20030001

Page 8

XIV

REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Greater Ouachita Water Company, Inc., Southeast Regional Wastewater Treatment Facility, November 20, 2003.